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ABSTRACT

This paper examines the social, political, and economic factors that influenced the adoption and diffusion of early-elementary school class-size-reduction policies at the state level. It applies a neo-institutional framework to explain the rapid spread of class-size reduction policies throughout many state legislatures and boards of education. It claims that legislatures are organizations embedded in a complex environment of local and national interests and influences, and that the adoption and diffusion of class-size reduction policies underwent a process of institutionalization. The study finds that an organization's capacity to change or to adopt a new structural characteristic, at least for the expensive reduction of class size in the early elementary grades, always depends on having sufficient resources to sustain such a move. This contradicts institutional frameworks that deemphasize the importance of economic viability in determining organization change as a structure becomes widely adopted by similar organizations. Under the circumstances of fiscal well being and with the presence of a legitimating rationale, class-size reduction policies were adopted in response to a nearly universal and persisting perception that the quality of public education had eroded and that schools required reform. (Contains 62 references.) (RJM)

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Early Elementary Class-Size Reduction:

A Neo-Institutional Analysis of the Social, Political, and Economic Influences on State-Level Policymaking

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ABSTRACT

This paper tracks the social, political, and economic factors that influenced the adoption and diffusion of early elementary school class size reduction policies at the state level across the United States up to the adoption of national class size reduction policy President Clinton's "Class Size Reduction and Teacher Quality Act" (P.L. 105-227, October 21, 1998). Taking the view that state legislatures are organizations embedded in a complex environment of local and national interests and influences, the adoption and diffusion of class size reduction policies among the states is considered as undergoing the *process* of institutionalization. This study finds an organization's capacity to change or adopt a new structural characteristic, at least for the expensive reduction of class size in the early elementary grades, always depends on having sufficient resources to sustain such a move. This is contrary to Tolbert and Zucker's (1996) de-emphasis of the importance of economic viability in determining organizational change (policy adoption) as a structure becomes widely adopted by similar organizations. Here, economics is always important for diffusion. The importance of economics can be substantially moderated by social and political forces in determining the persistence of structural change, however.

Early Elementary Class-Size Reduction:

A Neo-Institutional Analysis of the Social, Political, and Economic

Influences on State-Level Policymaking

Class-size reduction is one of the leading educational reform initiatives nationwide (see, for example, Toch and Streisand 1997). It is also the most costly. In addition to more than two-thirds of the states, the federal government is financing the reduction of the number of students per teacher in early elementary grade classrooms (see Mitchell and Mitchell, 2000a). These initiatives cost billions of dollars per year. This money pays for schools and districts to hire additional teachers and to purchase or reorganize to obtain more classroom space. In many places, the scramble for teachers and classrooms creates an environment typical of the fastest growing and most impacted school districts in the country, conditions which often require quality compromises due to the absence of adequate supply relative to demand. Around 15 to 20 students per teacher, depending upon the details of the policy in a given jurisdiction, will be the maximum or average ratio in an early elementary grade classroom. In some cases, this represents dramatic reductions, bringing down class sizes from the thirties to twenty or less. This is the case in California, at a cost in excess of $1.5 billion per year.

What has motivated such large investments in education? Why is so much money directed at a single, simple and generic organizational change, reduction of the student-teacher ratio in the classroom? How did this common folk wisdom that "smaller is better," well appreciated but heretofore having virtually no long lasting influence, become national policy? These questions will be addressed by taking a neo-institutional perspective, where class-size reduction policy is seen as an organizational innovation adopted by state legislatures for their

state school system. The first adoption wave at the state level began with the widespread state educational reforms of the 1980s, which ebbed by the end of the 1980s, and was followed by a second wave in the 1990s. Class size reduction policy can be generally characterized as responding to the long-existing pressure on states and their schools to make educational opportunity more equitable and the more recent pressure to raise the quality of educational experiences as well.

In this paper, state-level policies to reduce class size, with particular attention to the *early elementary grades,* are examined in their social, economic, and political contexts. The neo-institutional framework developed by Tolbert and Zucker (1996) is applied to explain the rapid diffusion of class-size reduction policies through many of the states' legislatures and boards of education. It is argued that under circumstances of fiscal well being and with the presence of a legitimating rationale, class-size reduction policies were adopted in response to a nearly universal and persisting perception that the quality of public education has eroded and that schools require reform.[1] The paper closes with an analysis of the prospects for lasting reduction in class size.

ANALYTICAL FRAMEWORK

Since organizational innovation is not the only directive that can be recommended or compelled by state-level policymaking, class-size reduction needs to be situated within the range of a state's capacity to affect change. Mitchell, Wirt, and Marshall identified seven aspects of school performance that states influence with rules and resources: finance, personnel, student assessment, educational programs, curriculum materials, buildings, and school organization and governance (cited in Mitchell 1986: 91). Class-size reduction policies, only one of many

[1] This is also consistent with the perspective that previous practices were being "deinstitutionalized" by the two prominent mechanisms offered by Oliver (1992): "government regulation" and "performance crises" (584).

responses to the perceived need for raising the quality of public education during the 1980s (for comprehensive reviews, see Stellar 1986; Timar and Kirp 1988), are directed at school organization. But organizing to reduce class size simultaneously impacts school finance, personnel, and buildings. Additional classroom space, teachers, and funds are needed when fewer students are placed with a teacher in a classroom for a given student population. Prior to class-size reduction, the number of teachers and classrooms was insufficient. And even with imaginative and sophisticated scheduling, additional expenses will be incurred to accommodate a lower classroom-level student-teacher ratio.

The Neo-Institutional Argument. The essentially political activity and the history that surround the introduction and successive adoptions of class-size reduction policy by states across the nation are presented using a mechanistic framework developed by Tolbert and Zucker (1996). Unlike many other neo-institutional analyses of education (see, for example, Crowson, Boyd, and Mawhinney, 1996), class-size reduction is not treated as institutionalized policy nor in conflict with the institutional environment, but in the uncertain and fragile *process* of institutionalization (see also Oliver 1992). This more recent perspective, which borrows heavily from Berger and Luckmann (1967), asserts that institutionalization proceeds through three phases: *habitualization*, *objectification*, and *sedimentation*. In the *habitualization* or *pre-institutionalization* stage,

> the creation of new structures in organizations is largely an independent activity... predicted largely by the characteristics that make a change *technically and economically viable* for a given organization and by *internal political arrangements* that make organizations more or less receptive to change processes. (emphasis added, Tolbert and Zucker 1996: 181-182)

Early on, there is nothing that makes this more than "simultaneous invention" in one state or another. But in the *objectification* or *semi-institutionalization* stage, diffusion is not merely coincidental.

> [T]he development of some degree of social consensus among organizational decision-makers concerning the value of a structure, and the increasing adoption by organizations on the basis of that consensus... is partially a consequence of organizations' *monitoring of competitors*, and efforts to *enhance relative competitiveness*..., [and] can also be *spearheaded by a 'champion'* – a set of individuals with a material [or ideal] stake in the promotion of the structure. (emphasis added, 182-183)

Objectification is the phase of both interest group politics and organizational competition. For a formal organization to adopt and persist in its utilization of a structural innovation that does not more than nominally enhance competitiveness, "champions" of the cause must present a rationale that makes the particular change compelling – a superior option, more valuable and less costly than any other action, including inaction. This advocacy position or rationale must have two qualities: it must apply to a recognized or convincingly invented "generic organizational problem;" and it must have "logical or empirical grounds" for justification. This "theorizing invests the structure with both general cognitive and normative legitimacy" (183). With this newly developed legitimacy, organizations are not merely seeking competitive advantage by copying apparently efficacious innovations; they are adopting a rationale that has commonly accepted justification.

Now, it is simply a matter of time. Newly established norms are not yet taken-for-granted. Innovations are still subject to surveillance and evaluation – accountability looms large. This may eventually change. In the *sedimentation* or *full institutionalization* stage,

> the virtually complete spread of structures across the group of actors theorized as appropriate adopters, and the perpetuation of structures over a lengthy period of time... depend on the conjoint effects of *relatively low resistance by opposing*

> *groups, continued cultural support and promotion by advocacy groups,* and *positive correlation with desired outcomes.* (emphasis added, 184)

In a very general systems theory sort of way, the political stability and institutionalization of a structural reform depends on demands made upon the organization to adopt policies which have identifiable outcomes, and the evaluation of those outcomes feed back on the support and demand for the continued action of the structurally reformed organization (see Easton 1965).

Application of Neo-Institutional Theory. In the analysis of the evidence which follows, an argument is made that early in the adoption of class-size reduction policies, individual states were inventing their own reform packages within their own political and economic constraints. State policymakers, here phrased in the language of Meyer and Rowan (1977), drew their legitimating "myths" from the institutional environment – wisdom from society at large. New formal organizational structures, rationalized through common and valued practices in private enterprise or by folk wisdom, provided understandable and easily communicated policy goals for public education. During the major reform wave of the mid-1980s, these "myths" included establishing higher standards, competency testing (for teachers), merit pay, and smaller student-teacher ratios (Stellar 1986). Tobin, Wu, and Davidson (1987) made the following observation, pertinent to this study, when trying to understand the differences between programs in the United States and Japan that serve preschool and kindergarten age children:

> If there is a universal truth, a universal good, as far as American... teachers, parents, and scholars are concerned, it is, The smaller the class size and the smaller the student/teacher ratio, the better.... American early childhood education specialists stress the importance of small classes, small student/teacher ratios, and a high degree of contact between students and their teachers. (533)

When seeking to raise the quality of the *early elementary school experience,* particularly entry into kindergarten or first grade, several states invoked this folk wisdom in their policymaking.[2]

This *habitualized* strategy for organizational change often became *objectified* as part of more comprehensive reforms motivated by political and legal pressure to equalize educational opportunity as well as achieve excellence. Class-size reduction policies were seen as commonly sensible, equitable, and aligned to the growing movement demanding higher quality educational opportunities – a solution to generic problems of organization. At the same time, centralized federal oversight was giving way to state-level initiative and competition in educational reform. Over time, thanks to the now famous *Project STAR* class-size reduction experiment funded by the state of Tennessee (see Mosteller 1995; Ritter and Boruch 1999), and the less carefully designed and evaluated *Project Prime Time* incentive program in Indiana (see Mueller, Chase, and Walden 1988; Gilman, Harder, and Tillitski 1988), other states were able to observe the effectiveness of small classes in raising student achievement, thus improving the potential competitiveness of their public school system and its graduates (or at least their employment value in the private sector). Interests supporting the cause for class-size reduction could now "champion" this popular structural reform on empirical grounds (see Bain and Achilles 1986; NEA Research 1986, 1988; for recent examples, Achilles 1999; AFT Educational Issues Department 1998; Feldman 1999; NEA Today 1998; Shanker 1995). It remains to be seen whether or not small class sizes will become *sedimented* and stable organizational structures in the educational reform policy stream.

Following a presentation of the many state policies and the larger political and economic context in which they were developed, this analysis will conclude by elaborating on the

[2] This argument is commensurate with that of Slater (1989), where he identified culture, structure, and size as an interdependent triad. Societal values, often in the form of a dominant political ideology, dictate how educational

prospects for full institutionalization of current class-size reduction policies. The persistence of smaller classes will depend on: 1) their continued diffusion among the states, strongly facilitated by the recently adopted federal policy, 2) a consensus definition of what constitutes relevant policy adopters, 3) continued low resistance by fiscally conservative groups, and 4) accurate identification of desired outcomes. Resolution of ambiguities remaining about relevant policy adoption – class-size reduction for all students or students "at-risk" in low-performing schools – and desired outcomes – lower student-teacher ratios per classroom or higher student achievement – determines the likely future course of class-size reduction. The path of de-institutionalization is more likely if there are declines in current state and federal education expenditures, a continued focus on achievement outcomes, and high expectations for equal opportunities and outcomes for all students.

METHODOLOGY

A variety of primary and secondary documentary and internet sources have been analyzed for this study of state-level class-size reduction policy for the early elementary grades (see Mitchell and Mitchell, 2000a; 2000b). State statutes and legislative records, technical reports, and scholarly research publications constitute the bulk of the data available. Not all states' policy histories are fully documented, while others have been studied intensively. The cases receiving the greatest attention among the early adopters have been Indiana, Tennessee, and Texas. By far the largest of the more recent adopters, California, has received tremendous coverage. Nevada, Wisconsin, and North Carolina are also relatively well-documented cases of class-size reduction policy adoption. Tennessee, Texas, and California are unique in the extent to which political activity related to class-size reduction policy has been fairly well researched.

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opportunities should be structured. From this prescription, the appropriate size or scale is inferred.

When examining the rationale for state-level class-size reduction policies, attention is focused on that which is provided for reducing class size in the early elementary grades. Additionally, only student-teacher ratios of 20:1 or less will be viewed as substantive reductions in class size. The development and diffusion of these substantial reductions for students in any or all of grades K-3 will be presented. Policy adoption dates and the social, political, and economic circumstances at the time of adoption are documented.

ANALYSIS

Anticipatory Events. The current politics of educational reform most strongly reflect the increased demand for educational excellence (high quality opportunities) and choice while seeking to resolve or put behind older questions of equality of educational opportunity (see, for example, Loveless 1998; Stout, Tallerico, and Scribner 1995; Timar and Kirp 1988). In order to understand the current state of affairs in the states with regard to class-size reduction, this shift in policy emphasis must be understood. Political activity and policy development during the transition period from predominantly equity to predominantly quality concerns must be reviewed, for it was then that smaller student-teacher ratios were being hailed as vehicles for delivering desired outcomes. This period is identified as the late 1970s to the early 1980s, a period when the nation's economy went from a damaging period of inflation into recession (McDonnell and Fuhrman 1986). International economic competitiveness was seen as seriously compromised. The activities of organizations outside of the United States, such as OPEC and the high technology manufacturing corporations and auto industries of Japan, Germany, and France, were having direct and serious effects on various state economies, in particular, and across the country more generally (see, for example, Guthrie 1986). Timar and Kirp (1988) characterize the shift succinctly:

> The idea of excellence became synonymous with the nation's capacity to survive the challenge of international economic competition. While the animating principle of federal and state education policies for the past two decades had been the protection of *individuals* at risk, the new educational agenda focused on a *nation* at risk. (1-2)

Importantly, this transition period also marked the beginning of a serious debate among educational researchers as to the efficacy of class-size reduction. Beginning in 1978, Gene Glass and Mary Lee Smith published several studies, together and in conjunction with the efforts of other researchers, which assessed the impact of reduced size classes on various educational outcomes, most notably student achievement, but also student and teacher attitudes and behaviors, including instructional practices (Cahen, et al. 1983; Glass, et al. 1982; Glass and Smith 1978, 1979; Smith and Glass 1979, 1980). The most widely contested finding, and the one that initiated great interest in the educational effectiveness of class-size reduction, was that significant increases in student achievement could be expected with substantial reductions in class size. At that time, this meant reducing class sizes from near 30 down to 15 students per teacher. Additionally, Glass and Smith asserted that there was little marginal gain in class-size reductions that did not fall below 20 (in the neighborhood of 17 or 18), but as classes got smaller thereafter, noticeable increases in achievement were predicted for each unit reduction in the student-teacher ratio. It wasn't until Indiana's *Project Prime Time,* piloted from 1981 through 1983 and then implemented as a statewide incentive program in 1984 (calling for a ratio of 18:1), followed by Tennessee's *Project STAR,* a statewide experiment from 1985 through 1988 (15:1), that large-scale data very near or at the Glass and Smith target became available. As such, the first major wave of state-level education reform was initiated with a strongly suggestive, but far from unequivocal research base on class size impacts (that may not have been considered at all in some policy deliberations).

State-level education reform activity, regardless of the presence of a class-size reduction initiative, needed more than the prospect of economic recovery and the existence of a research base. It needed encouragement. The publication of the ideologically and rhetorically loaded *Nation at Risk* report provided this spark in 1983, declaring that the "eroding" quality of American education was due to a "rising tide of mediocrity that threatens our very future as a Nation and a people" (National Commission on Excellence in Education 1983: 5). This substantially raised the pressure to improve educational quality. State and federal equity litigation and continuing or delayed legislative responses to judicial mandates had inhibited some states from readily shifting away from equity toward excellence as their dominant policy goal. Several state governments had already begun the transition from equity dominated politics and policies toward excellence and accountability in education during the late 1970s and early 1980s as perceived remedies to ailing economic competitiveness, but these actions had not been seen as an already coherent and coordinated response from the states (Mazzoni, 1995; Pipho, 1986). And from the standpoint of the national "bully pulpit," they were not coherent and coordinated. Attention focusing and national media attracting rhetorical leadership arose from within the Reagan presidential administration. And with the administration's efforts to move from federal to state led education policymaking, the already active states' governors were able to rally together under the leadership of the National Governors Association (McDonnell and Fuhrman 1986; Pipho 1986). This group embraced the philosophy that a more educated workforce was necessary for a stronger economy, and perceived this to apply to themselves and their respective state interests in the competition for businesses to remain and relocate within their jurisdictions. "In this competition, having good schools – or, at least, the reputation for them – was perceived

as a vital asset" (Mazzoni 1995: 57). These circumstances contributed greatly to the developing consolidation of state-level education reform.

The Beginning of Statewide Class-Size Reduction. Prior to the 1980s, class size was generally a matter of local policy, as was noted by Ross and McKenna (1955):[3]

> Class size policies are developed locally and are not influenced measurably by outside agencies, research, or practice in other districts. Birth-rate cycles, finance, and physical facilities have more often than not been the deciding factors. (14)

With the raising of class size policy to the state level, school-age population and finance continued to loom large in adoption considerations. As McDonnell and Fuhrman (1986) found, states' economic recovery and low school-age population contributed to a sense of capacity and urgency to affect a change in the quality of public education (see also Lewit and Baker 1997). These conditions, developing as early as 1982 and more broadly true in 1983 and 1984, motivated both big business and voters to support large increases in education spending, often by (tacitly) consenting to special tax increases (see, for example, Lutz 1986; Vold and DeVitis 1991). States took the lead, using various combinations of mandates and incentives, to affect early elementary grade class sizes or student-teacher ratios. This was true even in states with the most laissez-faire and local control traditions such as Mississippi (Jenkins and Person 1991).

As the recession weakened and support grew broadly among public and business interests for increasing funding to education through increased taxes, some states included class-size reduction policies in their major statewide education reform packages (legislation or regulations). By late 1985, eighteen states (Arkansas, Delaware, Georgia, Indiana, Kentucky, Louisiana, Maine, Michigan, Montana, Nevada, New York, North Carolina, Ohio, Tennessee, Vermont, Washington, West Virginia, and Wisconsin) had made some effort to lower student-teacher

[3] In 1979, Florida adopted a program targeting K-1 compensatory education students that funded the resulting substantive reduction of class sizes in many eligible schools (see Table 1).

ratios in the early elementary grades (Mitchell and Mitchell, 2000b; NEA Research 1986). Not all of these states had set their class size targets at 20 or fewer students per teacher in a classroom, however, and even fewer approached the Glass and Smith (1978) target of 15 students in a class. The states with substantive class-size reduction policies adopted by the end of 1985 included only Arkansas, Georgia, Indiana, Louisiana, Maine, Oklahoma, Tennessee (in the form of a statewide experiment), Vermont, and West Virginia (see Table 1). New Mexico followed in 1986, Hawaii and Rhode Island in 1987, and Nevada in 1989. Some states (e.g., Mississippi) adopted policies that brought teacher's instructional aides into kindergarten and early elementary grade classrooms to lower the "student-teacher" ratio, but did not intend to reduce class size (number of students assigned to a lead classroom teacher). Other states (e.g., Delaware, Montana, Washington, and Wisconsin) already had low student-teacher ratios, only changed the foundation funding ratio, or made unenforceable policy recommendations.

For the most part, class-size reduction policies followed the activity associated with the larger comprehensive reform measures of the 1980s. The majority of the activity was between 1983 and 1987. Virtually all major education reform initiatives at the state level, including class-size reduction, ceased during the shift from centralized state action to decentralized site-level action during the late 1980s (Mazzoni 1995). Reform activity also experienced another slowdown during the recession of the early 1990s.

During the time that state-level class-size reduction policies were "on hold," several important contributions to the research literature on class size had been made. Substantial research and evaluation of Indiana's *Project Prime Time* and Tennessee's *Project STAR* had taken place. The first major release of findings from Indiana appeared in *Contemporary Education* (Gilman, Swan, and Stone 1988) and *Educational Leadership* in 1988 (Mueller,

Table 1. State Class Size Policies in the 1990s (Detailed for Cap of 20:1 or Fewer)

State	Year	Program	Class Size Target(s)	Extent of Implementation	Content Areas Specified
Alabama	1997	Mandatory	18 max*	K to 3	Not restricted
Arkansas	1983, 1996	Mandatory	20 max*	K	Not restricted
			23 avg, 25 max	1 to 3	"
California	1996	Voluntary	20 max	K to 3	Mathematics & Reading
	1989, 1998		20 avg, 22 max	9	Two subjects, one English
Connecticut	1998	Voluntary	18 max	K to 3, low income districts	Reading
Florida	1995	Mandatory	20 max	K to 3	Not restricted
	1998		15 max	K to 3, critically low score schools	"
Georgia	1985, 1999	Mandatory	18.2 avg, 21 max*	K, adjust for no. of low perf. studs.	Excluding P.E. and group music
			21.5 avg, 25 max*	1 to 3, adj. for no. of low perf. studs.	"
Hawaii	1987[a]	Mandatory	21 max	K to 2	Not restricted
Idaho	1997	Voluntary	20 goal, 23 max	K to 1	Not restricted
		(max is accredi-	20 goal, 26 max	2 to 3	"
		tation standard)	26 goal, 28 max	4 to 6	"
Indiana	1984, 1988	Voluntary	18:1 max	K and 1	Not restricted
			20:1 max	2 and 3	"
	1999[b]		15:1 up to 18:1	K-3, sliding scale ("at-risk" index)	"
Iowa	1999	Voluntary	17:1	K to 3, low income districts	Basic skills
Louisiana	1984, 1989	Mandatory	20:1 systemwide, 26 max	K to 3	Not restricted
			33 max	4 to 12	"
Maine	1983	Voluntary	18 :1 max, 15:1	K to 3	Not restricted
Maryland	1999	Voluntary	20:1 max	1 and 2	Reading
Michigan	1997	Voluntary	17 avg, 19 max	K to 3, high % low income districts	Not restricted
Montana	1987, 1989	Mandatory	20 max*	K to 2	Not restricted
Nevada	1989	Mandatory	15 max	K to 3	Core academic subjects
New Mexico	1986, 1994	Mandatory	15 max*	K	Not restricted
			20 max*	1	"
			22 avg	2 and 3	"
			24 avg	4 to 6	"
New York	1997	Voluntary	20 avg	K to 3	Not restricted
Oklahoma	1985, 1989	Mandatory	20 max*	K to 6	Not restricted
Rhode Island	1987,[c] 1996	Voluntary	15 max	K to 3	Literacy, including numeracy
South Carolina	1977,[d] 1998	Voluntary	15:1 max	1 to 3, priority to "impaired" districts	Not restricted
South Dakota	1993	Voluntary	15 max	K to 3, intended to serve "at-risk" youth	Not restricted

Table 1. State Class Size Policies in the 1990s (*continued*)

Tennessee	1984, 1992[e]	Mandatory	20 avg, 25 max 25 avg, 30 max	K to 3 4 to 6	Exclud. P.E., art, music or other spec. classes "
Texas	1984, 1995[f]	Mandatory	20:1 Districtwide, 22 max	K to 4	Not restricted
Utah	1992	Mandatory	18:1 max	K to 2 K to 8	Reading emphasized "
Vermont	1985, 1998	Mandatory	20 avg* 25 avg*	K to 3 4 to 6	Not restricted "
Virginia	1995	Voluntary	15:1 up to 20:1	K-3, sliding scale (low income stud. pop.)	Not restricted
West Virginia	1983	Mandatory	20 max 25 max	K 1 to 6	Excluding group music classes "
Wisconsin	1995	Voluntary (*SAGE*)	15:1 max	K to 3, districts >30% low inc. students	Not restricted
Wyoming	1997	Mandatory	20:1 Districtwide	K to 3	Not restricted

Sources: See Table 1; Cal. Educ. Code § 52120 et seq. (Lexis 2000); Conn. Gen. Stat. Ann. §§ 10-257f, 10-265f (West 1999); Del. Code Ann. tit. 14, § 1705A (1998); Education Commission of the States (1999); Education Week (1997); 1995 Fla. Laws ch. 429; Ga. Comp. R. & Regs. r. 160-5-1.08 (1999); 1994 Idaho Sess. Laws 428; Idaho Admin. Code § 08.02.02.100 (2000); Ill. Stat. Ann. ch. 105, § 5/2-3.51 (West 1998); Ind. Code Ann. § 21-1-30-1, et seq. (2000); Iowa Code Ann. § 256D.1 (1999); Ky. Rev. Stat. Ann. § 157.360 (Michie 1986, 1996); Lewit and Baker (1997); Md. Com. I Law Code Ann. § 5-212 (1999); McManis (1997); Mich. Comp. Laws § 388.1631c (2000); Mo. Ann. Stat. § 160.550.1 (West 2000); Neb. Admin. R. & Regs. 92-10-004.03A4 (1996); N.H. Code Admin. R. [Educ.] 306.16 (2000); N.Y. Educ. Law § 3602.37 (1997); 1995 N.C. Sess. Laws 507; N.C. Gen. Stat. § 115C-301 (Michie 1997); Office of the Superintendent of Public Instruction (1996); Robelen (1998); S.C. Code Ann. §§ 59-20-40, 59-63-65 (1998); S.D. Codified Laws Ann. § 13-14-8.1 (Lexis 1999); Tenn. Code Ann. § 49-3-361 (1999); Texas Education Agency (1999); Texas Educ. Code §§ 25.111, 25.112 (2000); Utah Code Ann. § 53A-17a-124.5 (2000); Va. Code Ann. tit. 22, § 1-199.1 (Michie 1997); 1995 Wis. Legis. Serv. Act 27 § 3994m (West); Wis. Stat. Ann. § 388.1631c (West 1999); Wyo. Stat. § 21-9-101 (1999).

Note: The following states have some class, school, or district level policies limiting class size or student-teacher ratio to 25 or less (number and grades indicated in parentheses) – Delaware (22, K-3), Kentucky (24, K-3), Maine (25, K-8), Massachusetts (25, K), Mississippi (22, K), Missouri (25, K-2), Nebraska (25, K-12), New Hampshire (25, K-2), New Jersey (25, K), North Carolina (23, K-2), North Dakota (25, K-3), Ohio (25, K-12), Virginia (25, K; 24, 1), and Washington (23, K-12). Connecticut, California, Michigan, Oregon, Rhode Island, and Wisconsin permit class sizes to be collectively bargained.

[a] Hawaii raised their class size limit to 21 in response to inadequate revenues from weakening tourism in 1997.

[b] This change not effective until January 1, 2001.

[c] Rhode Island's grant program was not renewed until 1996. No other class size provisions in state laws or codes.

[d] This first measure set the student-teacher ratio at 21:1, with a class size maximum of 28, targeting basic skills in mathematics and reading.

[e] Class size averages added to statutes in 1992; Tennessee Acts of 1992 also established a K-3 at-risk class size program to be developed by the state department of education, and to be approved by the state board of education.

[f] Districtwide class size ratio added to statutes in 1995.

* Number may be higher with a classroom aide.

Chase, and Walden 1988). The Tennessee study results began to appear shortly thereafter with a paper in the prestigious *American Educational Research Journal* (Finn and Achilles 1990), followed by a special issue of the *Peabody Journal of Education* published in 1992 (Folger 1989). Earlier technical reports had been distributed from both the Indiana and the Tennessee studies, but national attention had not been focused on this work prior to these widely circulated findings. Many states investigating the efficacy of class-size reduction during the 1980s were still referring to work by Glass and Smith, and the Educational Research Service. Some states had begun to pick up on efforts by Indiana and Tennessee evaluators to promulgate their findings, but their work was not yet considered authoritative.[4] In fact, the problematic design features of the *Project Prime Time* studies prevented them from ever gaining the prominence achieved by the *Project STAR* findings (see Gilman, Harder, and Tillitski 1988). And as it turns out, national and international attention and scrutiny were to continue and escalate as the impacts of the *Project STAR* experiment were followed under the heading of the *Lasting Benefits Study*, and its efficacy tested in Tennessee through *Project Challenge* (see, for example, Galton 1998; Grissmer 1999; Mosteller 1995; Mosteller, Light, and Sachs 1996; Zeigler 1998).

The Continuation of Statewide Class-Size Reduction. Beginning in 1992, Utah led the next wave of statewide class-size reduction initiatives.[5] As the recession's impact diminished, other states followed: South Dakota (Minnesota adjusted its foundation formula) in 1993, Florida, Virginia, Texas, and Wisconsin in 1995, California in 1996, Alabama, Idaho, Michigan, New York, and Wyoming in 1997, Connecticut and South Carolina in 1998, and Georgia, Iowa, and Maryland in 1999. In 1994, New Mexico made further class-size reductions. Similarly,

[4] Ritter and Boruch (1999) found that Indiana's preliminary findings had some influence in Tennessee's decision to fund the *Project STAR* experiment.

Florida further reduced class sizes in "critically low-performing schools" in 1998, and Indiana further reduced class sizes for "at-risk" schools in 1999, effective 2001. Rhode Island renewed its class-size reduction grant program in 1996. The Texas action was a tightening of its 1984 educational reform initiative to set the student-teacher ratio at 20:1 districtwide with class sizes not to exceed 22. These last five cases highlight the fact that all states remain in the "risk pool" for adopting a class-size reduction policy (class sizes are not so small that they can not be set smaller still).

As in the 1980s, some states did not substantially reduce class size (e.g., Delaware, New Jersey, and North Dakota), while others experienced pockets of local initiative when state-level policies were less ambitious (e.g., North Carolina). The important difference in this second wave is that completely unlike the era studied by Ross and McKenna (1955), state and local initiatives were strongly influenced by research and practices in other jurisdictions. By 1995, *Project STAR* findings were cited in 11 states as justification for their class-size reduction initiatives (Bracey 1995). All adoptions since 1995, including the massive California policy and President Clinton's 1998 federal initiative, have cited the Tennessee studies as empirical grounds for the efficacy of supporting class-size reduction at costs in the billions of dollars.

The current and previous waves of class-size reduction policy adoption, and their relationship to economic conditions and the publication of influential works in class size research are depicted in Figure 1.[6] The pattern clearly corresponds to the post-recession policy activity identified, and is comparable with economic activity generally. The percent change in the real Gross National Product (GDP) and the proportion of states adopting a class-size reduction (CSR)

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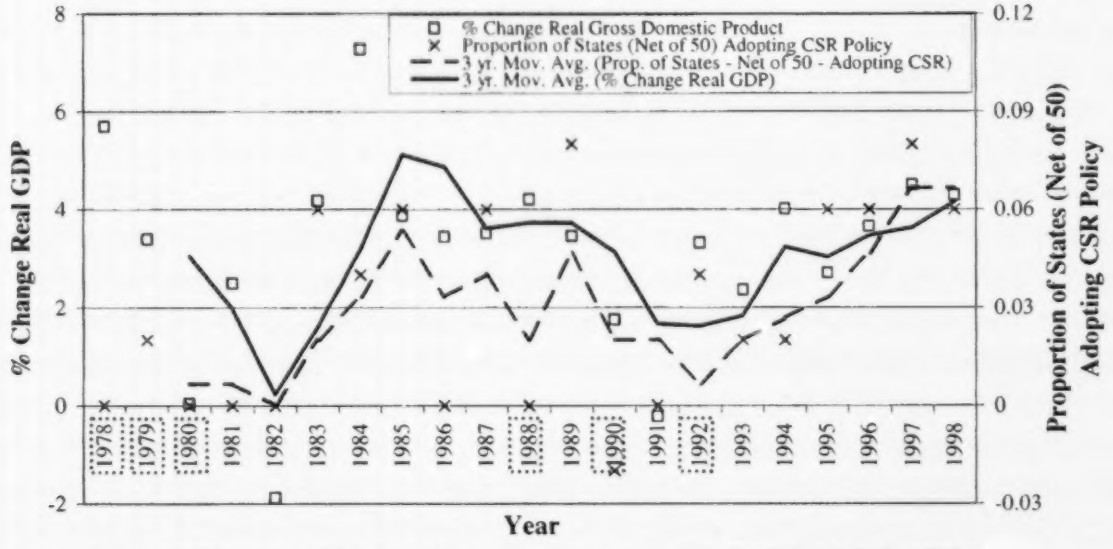
[5] Wyoming had made an effort to reduce class sizes for K-4 in 1991, only to halt the program in 1992 due to inability to finance the program. Also in response to inadequate state revenues, Hawaii allowed its class size maximum increase in order to cut several million dollars from the education budget in 1997.

[6] That is, the Glass and Smith studies, the Indiana studies, and the Tennessee studies referred to previously.

Figure 1.

Trends in Proportion of States (Net of 50) Adopting Class-Size Reduction Policy and Percent Change in National Real GDP



Sources: U.S. Department of Commerce, Bureau of Economic Analysis (1999: 135), Table 1.2, for Real GDP in chained (1996) dollars, and Mitchell and Mitchell (2000), Tables 1 and 2, for State CSR Policy Adoptions.
Note: Years in dotted rectangles are dates when major CSR research studies were published (see text for details).

policy are strongly associated (time series autoregression estimates using SPSS: Prais-Winsten multiple R = .723; adjusted R-squared = .467; $\rho = -.515$, std. error = .208; $\beta_{\%\Delta RealGDP} = .723$, $p<.0005$; n=20, i.e., starting with the first adoption in 1979). The second wave's increasing proportion of states adopting a CSR policy suggests that diffusion is taking place based on the empirical grounds offered, resulting in increasing isomorphism.

DISCUSSION

The pattern of statewide class-size reduction initiatives has clearly depended on economic viability. The *pre-institutionalization* of smaller classes during the 1980s was part of the larger process of the institutionalization of state-level influence in educational policymaking that had begun in the 1970s (Mazzoni 1995). The demand for improving the quality of

educational opportunity in public schools was met with a variety of organizational innovations, including reducing student-teacher ratios in the early elementary grades, which depended on the capacity of states to increase educational expenditures. The character and inconsistency of class-size reduction policies, as well as the "myth-like" justification provided for them, indicated that the 1980s represented a period dominated by "simultaneous invention."

The 1990s represent the *semi-institutionalization* phase of reduced size classes in American public schools. States seeking to improve their competitiveness could observe the various outcomes of class-size reduction in the states that had adopted this innovation during the 1980s. Germane to this competition, the high American value for small classes is routinely incorporated into formulae to evaluate the quality of education and level of concern for children in the United States by such prominent publications as *Education Week* and *The Future of Children*, which immediately translates into an assessment of higher quality schools independent of student outcomes. And with the empirical justification provided by the findings from *Project STAR* and the *Lasting Benefits Study* (see, for example, Folger 1989), promulgated by those with an interest in their dissemination (especially the teacher unions and the principal investigators themselves), reducing class size has become a compelling alternative to consider. Nonetheless, unlike the line of theorizing in organizational sociology that has been so helpful thus far, the economic viability question does not fade with respect to this innovation in the formal structure of the organization of schools. Adoptions of class-size reduction policies and the domestic economy rise and fall with high synchrony, demonstrating the dominance of economic viability.

FUTURE PROSPECTS

The *full institutionalization* of smaller classes in the early elementary grades has not occurred as of yet. This organization of personnel and resources for the work of teachers and the

opportunities for students to learn does not remain unquestioned. It is not a taken-for-granted aspect of public schooling. Some states have yet to adopt any sort of class-size reduction policy, which may be attributable to already small classes in some cases, and there remain many competing interests or skeptics questioning the value of the return for the level of expenditure required to substantially lower the student-teacher ratio for the early elementary grades (see, for example, Gilman and Tillitski 1990; Grissmer 1999; Hanushek 1998). Further, it is no longer clear exactly what constitutes the most effective and efficient utilization of this formal structure, and it is not clear whether or not it is the affect inspired by the structure itself that should be viewed as the relevant outcome of its incorporation. These two concerns, relevant policy adopters and valued outcomes that sustain support, are the basis for the closing remarks of this paper.

An important development coming out of the continuing debate on class size research is the differential impact of smaller classes. As has been the wisdom of educational practice for some time, smaller classes are required for special populations (see Finn 1998). Special education, Title I, and often classes for English language learners have been taught using structures that reduce the student-teacher ratio for children receiving these program services. Research results, including the Tennessee studies and the more recent North Carolina and Wisconsin studies (reviewed in Mitchell and Mitchell, In Press) suggest that children typically "at-risk" for low academic performance are most likely to benefit from reduced size classes. As such, states have more recently considered substantial reductions in class size only where children are clearly "at-risk" (e.g., Michigan, Virginia, and Wisconsin), while others have since revised their policies. An important case of the latter instance is Florida, where policy mandates

were adjusted from an undifferentiated initiative to one emphasizing such special needs, and further reduced class sizes for children in low-performing schools

Finally, political developments over the last decade of class-size reduction suggest that higher student performance may not be required to justify the persistence of class-size reduction. Evaluations indicate that class-size reduction in California, Indiana, Nevada, and Texas has been quite equivocal on student achievement outcomes (see Bohrnstedt and Stecher 1999; Gilman and Tillitski 1990; Lopez 1995; Mitchell and Mitchell 1999; Sturm 1997). Other states have not even seriously evaluated their student outcomes as a result of class-size reduction. Nonetheless, continuing and enthusiastic support exists for preserving smaller classes and student-teacher ratios in those states as well (note Gilman and Tillitski 1990: 23).[7] Parents and teachers insist that the educational experiences for children are superior in smaller classes, and have said so since policy inception, regardless of the existence or findings of policy evaluation studies. In fact, the public value held for smaller classes appears to be attracting higher socio-economic status families back to the public schools in California (Toch and Streisand 1997). Even Japanese teachers, where large classes reflect adherence to very different cultural values, marvel at the experiences made possible in smaller American classes (Tobin, Wu, and Davidson, 1987; see also Galton 1998). "Smaller is better" may be a sufficiently valued outcome for small classes, particularly the more intimate and manageable environment associated with it, such that any standardized performance measure increases are seen by parents and teachers as mere frosting on an already rich and expensive cake – the ability to say, "I told you so." It remains to

[7] This is consistent with what Meyer and Rowan (1977) identified as *decoupling* and *the logic of confidence and good faith*. That is, schools and politicians protect their dubious decisions from scrutiny by eschewing evaluation, and the common belief that popular decisions are appropriate can be secured by "the elimination of output data" that would allow decision-makers to "maintain face" (357-358).

be seen whether expensive tastes will be worth the necessary sacrifices when prosperity dims and economic hard times return.[8]

[8] This leaves me with a question raised by my teacher and colleague, rephrased here, concerning conspicuous consumption: Do we buy small classes (like a Rolls Royce or a Rolex) to demonstrate our social status and economic prosperity? I also wonder, for example: Certainly values play an important role, but have smaller classes been more a status privilege prior to the major CSR activities of the last two decades? Does status competition underlie recent major educational reform, as asserted by Kingston (1986)? But, alas, footnotes should be short.

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